

Lesson 3 Plant-like Protists.notebook

Plant-like Protists

<https://www.youtube.com/watch?v=vAR47-g6tIA>

9:59

1. often referred to as algae (phytoplankton)

✗ not in the plant kingdom because they are either **single celled** or they lack a **vascular system** that transports water so they could live on land

2/3. 4 groups Unicellular plant-like protists

A. Euglenophyta

- Example is Euglena

Have 2 flagella

Do not have a cell wall

Have an eyespot that is sensitive to light

Most are autotrophic but if light is not available they can absorb nutrients

Have a special cell membrane called a pellicle...which allows them to crawl if there is not enough water

Euglena

B. Chrysophytes

Have gold coloured chloroplasts

Have a cell wall made of pectin rather than cellulose



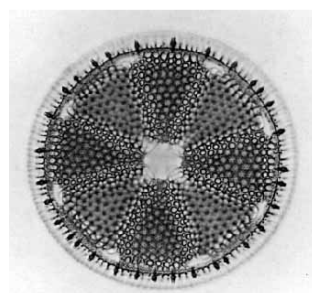
C. Diatoms

Have cell walls made of silicon (Si) (found in glass and toothpaste)

Walls fit together like a petri dish

Very abundant

<http://www.youtube.com/watch?v=JYB5529hDPI>



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D. Dinoflagellates

Half are autotrophs.....half are heterotrophs

Usually have 2 flagella

Cell walls made of cellulose

They are luminescent...referred to as fire plants

 <http://www.youtube.com/watch?v=0PnupEuxJ6g>

4. An eye spot is a cluster of cells which helps euglenas find sunlight.

5. Euglenophytes have the "best of both worlds" because they are both autotrophs and heterotrophs

6. Chrysophytes have pectin rather than cellulose in their cell walls.

7. Diatoms are like glass because they both contain silicon.

8. Dinoflagellates are luminescent which means they give off light when agitated.

Bioamplification

Red Tide - a big mass of
→ dinoflagellates

- can carry toxins that end up in filter feeders (clam)
- you eat the clams = sick

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1. Multi-cellular Plant-like Protists

Group 1 Red Algae

Are able to live at great depths as they have pigments that can pick up limited amounts of light

They can be found from the tropics to the polar regions

Provide nutrients to animals living in coral reefs



Group 2. Brown Algae

Found in cool shallow, coastal waters

Very large in size.....Kelp can be 60 m. in height

1. Brown algae often have a structure that holds on to the surface they are attached to. ← hold fast structure



Group 3 Green Algae

most closely related to land plants

- * ~~12~~ 13. Green algae contain chlorophyll for trapping light, have cellulose in their cell walls and store food in the form of starch

Found in both fresh and salt water

Go through both asexual and sexual reproduction during their life cycle....known as alternation of generation



- ~~12~~ 13. Algae produce oxygen, used to treat health problems like ulcers and high blood pressure, used in foods, found in plastics waxes and paints among others, and are used in labs to make agar which scientists use to grow bacteria.